VOL. III MARCH 1931 No. 9

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Agricultural Education

"DURING the next twenty years, either consciously or unconsciously, the United States will adopt fairly definite policies as to industry and agriculture. We are approaching that period which comes in the life of every nation when we must determine whether we shall strive for a well-rounded, self sustaining national life in which there shall be a fair balance between industry and agriculture or whether, as have so many nations in the past, we shall sacrifice our agriculture for the building of cities."

H. C. WALLACE,
Former Secretary of Agriculture.

***"It is not impossible that in America our greatest contributions to modern civilization may consist in the discovery of the ways and means for securing a happy concordance of vocational and of liberal education."*—Land-Grant College Survey, II, 123.**

EDITORIAL COMMENT

AGRICULTURAL EDUCATION

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by the Meredith Publishing Company at Des Moines, Iowa.

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Subscription price, $1 per year, payable at the office of the Meredith Publishing Company, Des Moines, Iowa. Foreign subscriptions, $1.25. Subscriptions terminate January 1 or July 1. Single copies, 10 cents. Contributions should be sent to the Special Editors or to the Editor. No advertising is accepted.

Entered as second-class matter, under Act of Congress, March 3, 1879, at the post office, Des Moines, Iowa.

TRAINING FOR FARMING VOCATIONS

AMONG the objectives that are basic in the program of vocational education in agriculture, are:

1. To supply mankind with clothing, food, and shelter in full-satisfying measure with the greatest economy of time, money, and energy.

2. To add to these necessities the additional things that enrich life and bring into fruitage the deep and abiding satisfactions for which mankind is striving constantly.

3. To achieve these two objectives in such a manner as to enlarge the social vision and the sympathetic understanding of these contributors to human welfare, thereby imbuing their souls with altruistic ideals and yet, concurrently increasing their technical efficiency.

How can these goals be attained?

The basic physical necessities of human beings cannot be supplied adequately at a just cost by inefficient farming. The farmer is confronted constantly with the problem of supplying these necessities with a fair profit from his business and yet at a price the consumer can be expected to pay.

A satisfactory solution of the problems of the farmer will not have been reached until such time as the farmers of the world succeed in organizing and conducting a world-community program of production and marketing of farm products, supplemented with their program of purchasing. Farmers must organize and conduct their own program of production, marketing, and purchasing. Their information and experience program of training must deal with and prepare them for their responsibilities in this three-fold task. The three phases of this task—production, marketing, purchasing, are interrelated and interwoven to the degree that one cannot be carried on successfully without successful development and execution of the other.

Farmers must organize and conduct their own program of marketing. This cannot be done with profit independently of their production program nor their purchasing program. If either the production or buying program is overdone, underdone, or poorly done, a profitable marketing program is an impossibility.

The production program must be organized and conducted on a world-community basis, reduced in final analysis to national, state, regional, district, and local units.

The population of the world is known. The needs of individuals for the maintenance of life, health, and general satisfaction are known. The world's areas in which and the conditions under which different kinds of agricultural products can be produced with the least expenditure of time, money, and energy are known for practical purposes.

The problem is one, therefore, of laying out definitely thru local, district, regional, state, national, and international agencies, working co-operatively, a production program to meet world needs—production responsibilities to be met by different areas in conformity with their suitableness to economic production of designated products—and of laying out a correlative program of marketing that will give a reasonable assurance that agricultural products will be distributed on a world-community basis with the greatest possible economy of time, money, and energy. —Z. M. S.

USE THE RADIO

THE time has come when supervisors and teachers of vocational agriculture may use the radio in their work. In the beginning the radio was considered primarily as a source of entertainment but now it can be made to serve more serious purposes.

The radio broadcast may be used to supplement instruction in vocational agriculture and for the state supervisor and teacher training staff to give instructions and make announcements to the teachers of vocational agriculture.

The radio program can be made to fit into and supplement instruction in vocational agriculture. One southern state, which has used the radio for three years for this purpose, has such subjects as the following on the radio program: Project planning; how to write the project story; carrying out the home project; why good project records; getting started with the home project; and how to study. Announcements of new bulletins may be made.

Then, the radio enables the supervisor to keep in more direct touch with his teachers. Instructions and announcements may be given, and encouragement and emphasis may be given on special phases of the program. Recently one southern supervisor wanted to change the date of a meeting of a group of teachers. He announced the change of date over the radio during the vocational agricultural program to the seven teachers involved. The announcement served its purpose.

Time is the important element with broadcasting stations. But most of the stations are willing to put on educational programs without any charge. Those supervisors who have had experience say that 30 minutes is long enough for a program. This should be divided about as follows: music, 5 minutes; technical lecture, 7 minutes; music, 8 minutes; feature talk or instruction or announcements to teachers, 5 minutes; and music, 5 minutes. Music at the beginning of the program gives time to tune in. Technical lectures should not be over 8 to 10 minutes.

The teacher should have the pupils take notes during the program and after it is over the teacher and pupils may discuss the program.

Of course, the successful operation of a radio program means that each agricultural classroom must be equipped with a receiving set. Radio distributors will usually make a substantial discount on sets for school use.

It is a considerable responsibility on the part of the supervisor and takes more time than one would expect to plan and put on radio programs designed to supplement instruction. The supervisor or some one from his office has to be at the studio at each broadcast; all those on the program have to be written, seen, or telephoned a few days before the program and then have it called to their attention again on the morning of the program, and a copy of each program has to be sent to the director of the studio a week in advance.

Picture in each state thousands of farm boys who are studying vocational agriculture, seated in their classrooms and all at one time listening to programs that will help them with their studies and hearing the state's leading educators, business, and professional men and bankers give messages—this is the situation the radio has made possible.—R. H. T.

Professional

The Rural School of Tomorrow

WILLIS A. SUTTON, President of the National Education Association

OUR nation's soil is a treasure house of wealth. From it have come the human riches of many great national leaders in politics, business, and the professions. Each year the farm sends an army of vigorous young men and women to turn the wheels of industry. Each year the farm pours fresh blood into the vitiated stream of city life.

At the threshold of an industrial age, 40 percent of our people still depend upon the farm for a living, while the whole nation depends upon agriculture for food. The farm plays a most vital part in our national life. Its resources are too valuable to waste. Upon the success of the American farmer depends the success of all American occupations in whatever enterprises they engage.

The personal contribution of the farm to American life has been enriched by the rural schools, poor as they are. These neglected institutions have been the center of rural culture and an inspiration to achievement thru the years. The teachers, of sound character, tho poorly qualified in training, have labored to serve. They have done their work well.

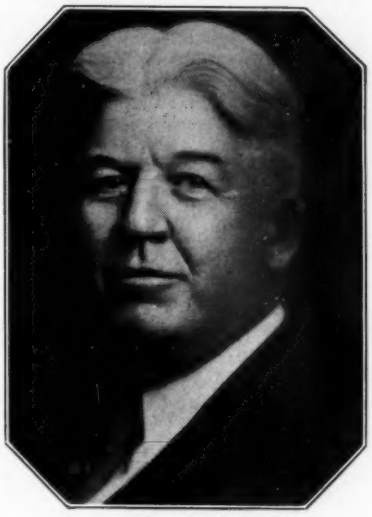
But the inadequate provision for education created by our pioneer fathers is passing. Our towns and cities have recognized its passing. Sanitary, safe, well-equipped, beautiful buildings house the children of the cities. Urban teachers are trained. Courses of study and methods of teaching are adapted to needs.

The greatest tragedy of farm life is the fact that the farm school has stood still, or nearly so, while every other institution and implement which men employ in service has changed to meet the demands of a new world.

I was born and reared on a southern farm. For 17 years I attended a one-room school. My first service was among rural people. My sympathies are still with them. I know their problems. They are not problems easily solved. It is not thru any lack of appreciation for the farmer's difficulties that I criticize the inadequate provisions he has made for the education of his children. It is with the hope that I may see country schools more attractive and helpful to children, more effective in bringing about rural prosperity that I point out the weaknesses of rural education.

When I was a pupil in the rural schools, the teachers had very little professional training, and they have far too little today. Seventy-one percent of the teachers in these one-room schools have attended school only one year or less beyond high school. More than one-fourth of them have had no more than six weeks beyond high school.

When I was a rural pupil, my school was not well supervised. Nor are rural schools today. In urban districts there are 83 supervisors for every 100 schools,



Willis A. Sutton

while in rural districts there are only 6 supervisors for every 100 schools.

A large part of the difficulties of rural education can be solved only thru more effective organization and administration, made possible by a fair system of taxation and a just equalization of school funds.

But these readjustments cannot be brought about until the rural teachers give people a vision of the possibilities of their schools. Here is a work for you who are in a position to improve their services.

Let us begin this work with the thought that an education for agriculture is not wholly training for effectiveness in crop raising and animal husbandry. Farming is a way of life. It is an adaptation to the limitations and the advantages of a special environment. Rural education must break down that defiant spirit of independence that isolation has permitted. Co-operation is the first and last principle of every activity of industry and business. Urban people have learned to work together on their enterprises. Farmers must learn to co-operate in crop production and in the distribution of their products. They must know how to reduce the cost of farm operation. Less labor and less machinery must be made to go further.

The vocational aspect of farm life is a problem for rural economists as well as for experts in production. Education in agriculture must include complete understanding of the principles of taxation, tariffs, and trade regulation. The farmer of tomorrow must be alert to protect his needs. The rural schools must educate the youth of today for the farm revolution that tomorrow must inevitably counterpart the revolution in industry brought about by the machine.

But the rural school of tomorrow must offer something more than vocational training. It must vitalize every phase of farm living. It will be a health center equipped to build health habits in children and to offer the services of clinics to young and old. It will teach such home planning and design that will instill in farm people the ideals of convenient living which are common in the city. It will create in rural people a lifelong interest in learning, and the means with which to satisfy it, such as libraries, lectures, music, and winter evening schools.

The new rural school will educate for rural life; it will not turn the dreams of ambitious youth to the city as the only challenge for worthy achievement. It will find great work to do on the farm, and will keep farm boys and girls there to do it well.

The rural school of tomorrow will concern itself with leisure. Farm work days have been growing shorter for years, and they must continue to do so as the effective practice of scientific agriculture continues. The farm is the greatest playground in the world. It is a favorable field for creative play, the happiest and most worthy leisure employment of man. Free from the hawking cries of those engaged in manufactured pleasure for a profit, the country youth may sit down in quiet and think. There is every reason why the farm should produce great painters, musicians, writers, and other creative artists. No one can estimate to what great extent reflective thinking, uninterrupted by distractions, has been responsible for the national leadership that has come from the farm. With shorter work days on the farm, opportunity for creative play will increase, the responsibility of the schools will grow. The rural schools are today the nation's most perplexing, most interesting, and most important job. Teachers of farm boys and girls, I congratulate you upon your assignment!

The National Education Association has been conspicuous in the mobilization of its forces from time to time to aid educational crises. For the year 1930-31 President Willis A. Sutton has planned for a special emphasis upon the improvement of education in rural districts. Thru long experience and personal observation of the needs of these schools Doctor Sutton is in position to render valuable assistance in this important branch of education.

Because of Dr. Sutton's keen interest in the field of agricultural education, and because of the intimate relationship which exists between better rural schools and the teaching of agriculture, Dr. Sutton graciously agreed to prepare a brief statement for AGRICULTURAL EDUCATION. Thru this means the Agricultural Education Section of the A. V. A. may give its support to the worthy goal of the National Education Association.—A. K. G.

Methods

Radio Is Used for Agricultural Instruction in North Carolina Schools

ROY H. THOMAS,
Supervisor, Vocational Agriculture,
North Carolina

PICTURE hundreds of farm boys in different communities thruout the state of North Carolina who are now studying vocational agriculture and who will be our farmers of tomorrow, seated in their classrooms and all at one time listening to unseen speakers, recognized as the state's and nation's experts on agricultural subjects, give them lectures and instructions. Consider what it means to the farm boys in the rural communities to hear the messages from the governor and the state's leading educators, professional men, bankers, and business men.

The radio has brought about this situation. Considered primarily as a source of entertainment, the radio is now being used successfully by the Division of Vocational Education, State Department of Public Instruction, to supplement and vitalize the teaching of agriculture in the high schools in the state. This is, it is understood, to be the first attempt in the South to make radio lessons function in vocational agricultural schools. The radio has been used in the city schools of Atlanta for several years and Farmers' Hour is a part of nearly every broadcasting station, but North Carolina is a pioneer in this particular type of service to rural schools.

The weekly programs known as the Young Tar Heel Farmers Programs are designed primarily for the 11,000 persons who are receiving systematic instruction in vocational agriculture in 171 high schools located in 80 counties of the state. Of the 11,000 persons, 5,000 are farm boys between the ages of 14 and 18 who are regularly enrolled high school students while 6,000 are farmers who are attending short courses in agriculture at their respective high school departments of agriculture.

This radio service to schools was started to meet the modern demands from the agricultural schools for live up-to-date information from the state's agricultural experts. A few years ago, due to the few schools, the agricultural specialists could visit the individual schools but since the number of agricultural departments have grown to 171 the specialists do not have time to visit each school. Studying the needs of the schools under his supervision, the state supervisor of agricultural education saw that the radio would enable the agricultural students thruout the state to simultaneously receive the lectures and instructions. The Durham Life Insurance Company of Raleigh offered the use of its broadcasting station and the result was the launching of the Young Tar Heel Farmers Programs.

Next, the schools were urged to purchase radio receiving sets to place in the agricultural classrooms. The radio lessons cause little, if any, interruption to the regular classroom work. Seated in their classroom as usual the teacher tunes in on the radio program. The students take notes on the lectures. If the radio lesson is on judging seed corn the boys have samples of corn before them and as the instructions come in they place the ears according to merit. A valuable part of the program is that the radio lectures fit into and supplement the agricultural teacher's program. For example, when the students are studying the fertilizing of crops the radio lectures are on fertilizers and when they are studying baby chicks the radio lesson is on the care and feeding of baby chicks.

Following is the complete program: January 5, New Year Message of Y. T. H. F., by T. E. Browne; music by Apex Chapter. January 12, A Thrift Program for Y. T. H. F., by Roy H. Thomas; music by Garner Chapter. January 19, Project Planning, by L. E. Cook; music by Perquimans County Chapter. January 26, How to Write A News Article, by R. E. Williams; music by Wakelon Chapter. February 2, The Place of Poultry in the Live-at-Home Program, by R. S. Dearstyne; music by Lillington Chapter. February 9, The New Tobacco Co-operative Marketing Contract, by Oscar Webster, Bath Chapter; music by Spring Hope Chapter. February 16, The Heifer Calf, A Farm Asset, by R. H. Ruffner; music by Apex Chapter. February 23, Thrift, by Paul P. Brown, secretary, N. C. Bankers Association; music by Garner Chapter. March 2, How to Read Pictures, by L. O. Armstrong; music by Wakelon Chapter. March 9, Feeding Hogs, by W. W. Shay; music by Lillington Chapter. March 16, Y. T. H. F.'s, The Future Co-operative Farmers, by U. B. Blalock, general manager, N. C. Cotton Growers Co-operative Association; music by Spring Hope Chapter; March 23, The Importance of Variety and Staple of Cotton, by Dr. R. Y. Winters; music. March 30, Importance of Carrying Out the Home Project, by Dr. Clarence Poe; music. April 6. Why Good Project Records, by J. K. Coggin; music. April 13, White Lake Camp, by J. M. Osteen; music.

Prof. Sherman Dickinson,
University of Missouri,
Columbia, Missouri.

Dear Prof. Dickinson:

We are indeed grateful to you as spokesman for the agricultural section of the American Vocational Association for your expression concerning help rendered by SUCCESSFUL FARMING. Thru your work we can see far-reaching benefits to American agriculture and it is a pleasure to know that it has been possible for us to help in a small way at least.

Sincerely yours,
SUCCESSFUL FARMING,
Kirk Fox, Editor.

The Problem of Handling Large Classes in Agriculture

GEORGE W. BEATTY,
Gillette, Wyoming

DURING the past six years the Campbell County High School located at Gillette, Wyoming, has received considerable publicity because of the large number of students handled each year in the department of vocational agriculture. Teachers invariably ask the question, "How do you handle such large classes with the splendid results that you have?"

For the past four or five years the number of students enrolled in our department of vocational agriculture has averaged from 75 to 80 and these students are enrolled in first and second year work.

The factors embodied in teaching a course of vocational agriculture to a group as large as this must be considered in a number of phases:

First: The preparation and presentation of the lesson material and the testing of results.

Second: The grading of papers in written exercises and the evaluation of the student's knowledge covered in oral recitation upon the material offered presents a number of problems with a group of students as large as ours.

Third: The record work required by the state and federal departments for supervised practice in classes and at home on the farm for a group of this size covers another territory requiring considerable planning and execution.

I believe a fair idea of our program can be given by discussing these three phases in order as follows: At the beginning of the year as each student presents his admission card to this department he is enrolled in one of the two classes that we give to our first and second year students. The first year students receive a course in animal husbandry and the second year students a course in crops production. Both of these classes have their lessons based upon problems dealing with the subject matter chosen from actual experience within our own territory, as we believe such material is more important than reference work taken from a book written in some other district. One might add here also that when a lesson is taught upon material that concerns a local problem it receives considerable more attention and interest from the class and individuals and makes the disciplinary problem one of minor importance.

Such class work is divided into groups of material according to the various enterprises with which they are concerned; constructed upon the standard recognized job analysis basis and kept in plan books ready for instant use when needed. The subject matter is determined from surveys made by the students during the school term for the

current year and also from surveys made by the teacher during visits to projects and to prospective students during the course of the year's work. From this subject matter is selected 30 to 40 objectives called "jobs," which are prepared for presentation in class. The lessons in class are conducted on the social recitation basis followed by a period of supervised study.

As a basis for determining the results of the study of the material presented in class and of the work covered in the supervised study periods, the students are required to keep a notebook in which their work is divided into the enterprises and jobs studied. These notebooks are graded once every six weeks. Some time during each period of supervised study the students are tested by an oral or written quiz which is graded by students. Twice each six weeks period we have an examination test, and at the end of each six weeks' period, a final examination. The average for the student is determined by the average of his quiz grades and his examination grades multiplied by two and added to his final examination grade the sum of which in turn is divided by three to determine his six weeks' final average. It has been found that when the supervised study period is correctly handled in this manner, the number of failures is reduced.

The reports for our supervised practice work required for our classroom records and the superintendent's office records and also for the state department of education records are covered in monthly reports, preliminary project reports, final project reports, annual reports, and reports covering work done, including inventories. The superintendent's office reports are taken care of by the students' report cards and credit cards compiled from information derived from the class book. The material for the preliminary and final project reports is taken from the summary reports made out by each individual student in the project record book which he is required to keep.

The above outline appears to cover considerable ground but when this work is systematized with a time set and adhered to for the performance of each phase, it is finally accomplished in a satisfactory manner.

Training a Farm Youth to Be a Successful Poultry Farmer

Elastic Administration and Individual Instruction

G. A. SCHMIDT,
Teacher Trainer, Colorado

LET us assume the following situation: There is a high school in the locality offering instruction in vocational agriculture. The agriculture instructor has a class in livestock production, meeting daily from 9 a. m. to 12 noon; and also a class in crop production, meeting daily from 1 to 4 p. m. The three-hour period devoted to each class is divided as follows: Class instruction, 90 minutes daily; individual project study, 90 minutes three times per week; and farm shop work, 90 minutes twice a week. The schedule is tentative only, and so elastic that it can be changed as different situations arise. On days in which the instructor desires to do field work with a class, he uses for this work as much of the three-hour period as is essential. The instructor is competent in poultry production.

Discussion

It would be absolutely essential that the youth fitting himself to be a successful poultry farmer have facilities for a good poultry project. He might have his own flock of about 500 hens or he might take over the complete management and operation of the home poultry flock, on a profit sharing basis. If the home flock is not large enough to offer adequate training, the understanding should be that the flock be increased in time to such a scope as will give the youth sufficient experience in such management and operation as a successful poultry farmer has.

The young man will enroll in the livestock production class. He will participate in the daily class discussions only when there is being discussed farm jobs which are applicable to poultry production.

The young man will participate in field work only when taken in connection with poultry activities.

When he does not participate in class discussions and go on field trips, he will be working, in school, on jobs directly concerned with his poultry project.

The regular school time set aside for individual project study will also be used by the young man for study on his poultry project.

In the time set aside for farm shop training, the youth will work on various poultry jobs. This may involve the making of poultry appliances; studying poultry houses; making plans for improvement of poultry houses; and so forth.

The youth will be given adequate guidance and assistance, in school, such as will make his school study most profitable to his success in the poultry business. His home project will be well supervised by his instructor.

In the use of his afternoons, this youth has several alternatives. First, he may go home to attend to his poultry business. Second, he may enroll in the crop production class, if he would choose to have one or two crop projects around which the instruction in crop production would function. Third, he may enroll in any non-vocational classes in which he was interested and the training would meet some of his real needs.

This entire plan calls for a very elastic administration of the vocational training offered by the school, enabling a pupil to take such work as will be of most worth to him in the occupation he is fitting himself to engage in. There will, therefore, be no rigid entrance and attendance requirements.

I think the instruction and training outlined for this youth would be 100 percent functioning and would be specifically planned to fit him for the specific farming occupation he wishes to be prepared for.

Furthermore, this plan assumes that the youth can get his instruction and training while living at home. This requires, on his part, the least possible expenditure of capital in getting his vocational training. Then, also, all existing facilities, the school, the school shop, laboratory and equipment, and a teacher of vocational agriculture would be made use of without any additional tax burden upon the public for separate agricultural schools of less than college degree.

Soils—As It Is Taught At Beaver Dam High School

L. R. LARSON,
Beaver Dam, Wisconsin

IT WAS my good fortune during the past summer to meet one of the three men who impressed me as being teachers par-excellence during my college career. As we wandered thru the field of educational experiences, he dropped this remark, "It has been my experience that students, who later teach, learn their teaching methods from those teachers whom they in turn respect as good teachers." I am such a firm believer in this theory that I hesitate to say that the particular outline which I use in teaching soils will be even partially correct in the reader's opinion. This plan of teaching soils is submitted with the idea that its value will be measured according to the yardstick laid out in the first part of this paragraph.

In order to establish a "soils foundation" we make it a point to "dig in the soil" on our first day of soils work. This field trip is not taken for the purpose of driving home any concrete soil facts, but only to cultivate the "mental soil" for a little "soil respect" later. How soils were formed and classified are studied by using illustrative materials, studying pictures and outlines, and by making field trips.

By this time a wide-awake farm boy is beginning to make applications to his home farm. Consequently, we then suggest that he make in duplicate good copies of a map of the fields on the home farm. The purpose of these maps is to serve as a guide and record for his home soil testing. At the completion of the map making, a field trip on the accurate sampling of soils from various fields and locations is taken. With this information and experience each boy gathers soil samples from all of his home farm fields, dries and pulverizes the soil, and puts the samples into properly labeled bags to correspond to the map that he has previously made.

Since the physical features about soils have been covered, we naturally drift into the use of the soil by the plant. Therefore, a short period of time is spent in a study of absorption, manufacture and use of food by the plant. Charts, sketches, and microscopic slides assist in teaching this unit. Insofar as plants take something from the soil in order to grow the boys naturally become curious to know what this something is. Our stage is then set to go into the chemistry of soils. (Not soils management.) As we study this field it becomes apparent to the boys that it would be interesting and valuable for them to determine how their soils "stack up" in lime, phosphorous and other soil constituents. Here is the place then to bring in the testing of the home soils for lime and phosphorous. Have each boy test out all of the soils of his farm and have it done accurately. We have every boy make a Truog test for acidity and a Hilo-phosphate test for available phosphorous on each sample from his home farm. The results of the tests should be recorded on both of his soil maps, one copy of which should be retained by the student and one by the instructor.

Results from soil tests have no value except if applied. In order to apply these results, we must have definite informa-

(Continued on page 148)

Evening Schools

Texas Is Evening School Conscious

J. C. DYKES, Professor of Agricultural Education, College Station, Texas

THE agricultural evening school program in Texas has made a remarkable showing in the past few years from the low mark of only 3 percent of the white teachers holding evening schools in 1926–27 to 85 percent in 1929–30.

TABLE I
Evening Class Development
1926–27–30

Year	Number of Teachers	Number Holding Evening Schools	Percent Holding Evening Schools
1926–27	159	6	3
1927–28	164	73	44
1928–29	202	128	63
1929–30	217	153	70

The increasing number of evening schools is a result of the appreciation of the teachers of the value of this type of instruction to the agricultural education programs in their community. An analysis of the 198 evening school reports submitted by 153 Texas teachers of vocational agriculture for the year 1929–30 reveals some rather interesting tendencies in this phase of vocational instruction:

(1) Many of the teachers are holding more than one evening school during the year. In some cases two or more adult classes are held at the same school; for example, W. E. Leverkuhn, teacher of vocational agriculture at Bryan, held an evening school in "Soil Improvement" at Kurten beginning on October 10. At the request of the farmers who attended this course he started his second school at Kurten on "Improvement of Dairy Cattle" on December 17, and his third school on "Improvement of Farm Poultry" on April 9. Thus the evening school work has been continuous at Kurten, meeting one night each week, from October 10 to the present time. In other instances the teacher of vocational agriculture will be conducting two or more classes in different communities on the same subject during the same months; for example, W. E. Jones of Crosbyton began an evening school at Smith School on "Community Problems" on February 3 and one at "Big Four" on "Community Problems" on February 5. The 153 teachers that engaged in evening school work during this school term taught 198 classes and the trainees of the agricultural education department at this institution taught 10 others making a grand total of 208 evening schools for white adult farmers in Texas.

(2) There were 63 evening schools taught in rural communities near vocational agricultural schools this year. This policy of taking the instruction out to the farmers, rather than expecting them to come into the county seat or good-size town where vocational agriculture is taught, proved very satisfactory to the teachers that tried it this year. They found that the groups were somewhat smaller but that their problems were more nearly the same and that group interest and participation was higher.

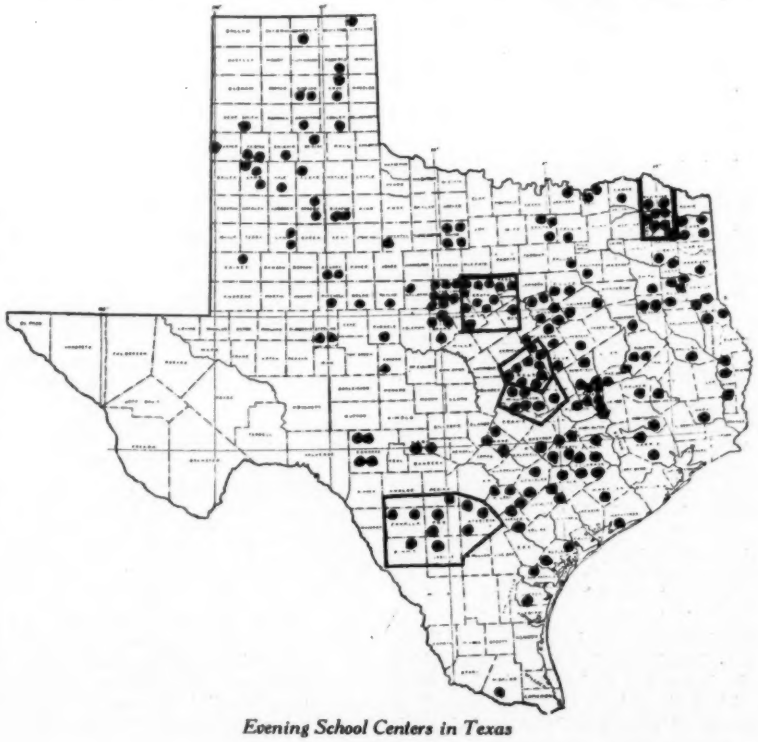
(3) There was a large number of specialized courses taught this year. In the past, practically all courses have been organized on an enterprise basis, as "Poultry" or "Dairying." The plans this year indicated that the teachers would teach 44 schools on major farm problems; such as, "Restoring and Maintaining Soil Fertility," "Feeding Livestock and Poultry," or "Controlling Diseases of Livestock and Poultry;" 22 schools on "Community Problems" or "Improved Practices" in which the farmers themselves set up the contents of the course; 8 schools on special divisions of an enterprise, as "Baby Chick Problems" or "Producing Fall Tomatoes;" 14 schools on combinations of problems and enterprises; such as, "Feeding Livestock," and "Pecans" or "Terracing" and "Poultry Production." One hundred twenty schools were taught on the enterprise basis this year. This tendency to narrow the field on instructions as shown by 74 schools, or 35 percent, being conducted in more specialized fields is encouraging as it shows that the teachers are recognizing the need for more specific attention to some of the major farm problems in their communities and are paying more attention to the seasonal interest of the problems discussed.

(4) The evening school instruction is being more nearly distributed thruout the year than ever before. Tho the farmer's slack season of December, January, and February is still the favorite time to start evening schools (see Table II), there were evening schools in progress during every month in the year.

TABLE II
Months in Which Texas Evening Schools Started, 1929–30

Month	Number	Month	Number
July	5	January	42
August	2	February	52
September	7	March	22
October	14	April	6
November	21	May	1
December	30	June	6

Five evening schools started in July (1929); one was held by H. H. Weatherby, a first year teacher that went on the job July 1 at Blooming Grove. Reports of the teachers, as well as the participation training experience this summer, indicate that farmers will attend the meetings regularly during the summer months if the problems studied have seasonal interest. The average length of an evening school was figured at two months and one week based on the information supplied in the plans as to number and frequency of meetings. While a majority of the schools, 118,



Evening School Centers in Texas

still met only one night a week, 69 classes met two nights a week, and 12 met more than twice a week. Only 9 classes met less than once a week. There was little deviation from the standard length of meetings, 90 minutes, 15 holding longer meetings and 20 shorter. Night is still the favorite time for evening school meetings altho 21 classes this year met in the afternoon (usually Saturday). Practically all these afternoon classes were held in centers where the farmers came in to trade. The place of meeting was usually somewhere down town, at the Chamber of Commerce building or in the county courthouse rather than at the school building, and the attendance and interest was gratifying.

(5) It is hard to discover much accurate information as to the methods of instruction to be used in the classes from the reports but some encouraging and some discouraging facts were found. Fifty-two teachers included demonstrations in their plans and 20 planned for some practice work in their courses. This included practice in terracing, in selecting dairy cows, and so forth. Seven teachers planned field trips or observation trips as part of their course and 9 planned to use lantern slides or moving picture films during their course. Forty-four teachers stated the majority of the subjects of individual lessons in problem terminology. A number of others stated some of their lesson subjects in terms of problems tho too many are still reporting lessons in subject matter terms. Twenty-seven teachers planned to use outside speakers for one or more meetings during their course. Eight of these teachers indicated that outside speakers would conduct five or more meetings for them. The speakers listed were good subject matter men but certainly had very little training in handling evening school groups.

(6) A study of county distribution of evening schools reveals the fact that in sections where a teacher-helper (part-time district supervisor) is located that more evening schools are held than in the sections where there are no teacher-helpers. A. J. Spangler of Stephenville, Erath County, is teacher-helper in his section. Note on the map the number of evening schools held in Erath and adjoining counties. J. L. Owens of Mt. Pleasant, Titus County; J. A. Hendricks of Heidenheimer, Hell County; W. N. Elam of Taylor, Williamson County; and C. D. Parker of Dilley, Frio County, are the other teachers of vocational agriculture that are acting as teacher-helpers in the state. In each of their sections a large number of evening schools have been held.

WOMEN IN EVENING SCHOOLS

For some years farm women have been studying certain aspects of agriculture in evening schools: poultry, dairying, and home gardening, and beautifying the home grounds are notable examples.

From several states in all parts of the country comes definite evidence that special evening classes for homemakers are being conducted simultaneously with evening classes for farmers.

In every case it is reported that such an organization and correlation of course offerings is very beneficial in keeping up the attendance of the classes for farmers.

Night School Musings

JESS A. KOVANDA, Ord, Nebraska

SO YOU'RE that agricultural teacher! I'm Hornickel from Mira Valley, and I'm pleased to meet you. Yes sir! Been looking for you for some time—been reading about those night schools you're holding at Haskell Creek, and Olean, and Springdale. Reckon we've got just as much right to one as they have. What's the idea of passing up Mira Valley? Get a crowd together? Say! Mira Valley always turns out a crowd! Just give us a ring and we'll fill the house!"

They were waiting, 50 strong, crowded in the small Valley Side schoolhouse 12 miles out in the country. They came from sparsely settled regions over a wide radius; some came afoot, and others arrived with blanketed horses and robe-covered autos, for it was below zero, and snowing.

But most of them were there thru curiosity. Swine raising was to be studied. This they had known for a long time prior to the gathering. Swine raising was what they carried on and thru which they prospered. Sanitation programs they had worked out for years. Cross-breeding they had practiced when college professors still extolled the eternal superiority of purebreds. Perhaps a few could have improved their methods, were they less stubborn or more ambitious; but on the whole these Valley Side farmers raised pigs very well.

"What problems or difficulties bother you most in raising swine?" inquired the teacher, after making a few introductory remarks. There followed a deep silence, save for the hissing of gasoline lanterns. "What phase of this hog enterprise do you wish to take up first?" he continued. "Types and breeds," recited the key farmer. "What difference does it make?" countered another who already had his breed picked, and was looking for more important topics.

The teacher's enthusiasm began to waver. There was a challenge in the eyes of these skilled hog raisers. The valuable ideas which they held up their sleeves they tactlessly refused to give. They only sat in stoic silence.

The joke which the teacher next offered may have been ancient; its dignity may have been questionable; but it struck home. The farmers were still smiling about it after the mimeographed sheets had been handed out.

These sheets contained more than 50 suggested problems on swine. No one of the farmers, experienced tho he was, could solve all of them. Furthermore, they began to ask questions: "How about number two?" "What would you do in a case like number seven?" "What's the answer to that thirteenth one?" These came from the farmers who had refused to speak a moment before. Now they all wanted to talk at once, and the possibilities of a group discussion became apparent and the teacher had "sold" the farmers a night school.

The enrollment of this school kept growing until the last meeting when there were 55 farmers present. At that time they were given cards on which they checked the jobs with which they still desired help. Having these points of contact with which to work, the instructor was able to continue with a fairly successful follow-up evening class program.

These facts are not told to make any vocational agriculture teacher who has not taught a night school, feel that he must do so or be considered a "flop." I expect that not all night schools are such phenomenal successes as the ones we read about. Maybe a few of them would better never have been attempted. It may be well to lay all the cards on the table and consider some of these sincerely attempted night schools that "faw down and go boom."

Farmers are often skeptical of young college graduates who attempt to come out and cure their bucolic ills. At times this doubtfulness is justified. Not all of our agricultural instructors have enough training and ability to efficiently organize and direct adult classes. In fact many of our trainers and directors have never done it.

Some of this inability can be traced to lack of training and experience. "Do not lecture!" lecture teacher-trainers, who may themselves be inexperienced, rusty, or misled by swivel-chair theories and mechanical standards. "Develop discussion!" they continue, but discussion in itself may solve nothing. Farmers discuss problems every day on street corners and by the wayside. Discussion must be directed! Some of the problems they are solving themselves, with the assistance of county agents and farm magazines. Other problems may be beyond solution. Discussion problems must be carefully selected.

Perhaps there exist communities so hidebound and self-divided that no personal magic or appeal can persuade them to participate in night schools, and perhaps, some instructors are so occupied with other extra-curricular functions that they have insufficient time left for the proper conducting of night schools.

It appears that many teachers of agriculture have achieved a certain degree of success. This has been made possible because we teachers are resourceful, be-

(Continued on page 148)

Jess A. Kovanda

Changing Farm Practices Through Evening Courses

ABRAHAM COAN, Teacher of Agriculture, Lambertville, N. J.

[*Editor's Note: This article is one of the most inspiring I have read. Evening courses certainly can produce worthwhile results.*]

TEN years ago when I taught my first evening course, I measured the success of the work very largely by enrollment and so-called interest. Today after analyzing some of the meetings I have conducted, I believe that the poorest meeting I ever held was a dairy meeting attended by 60 people.

A large enrollment may merely indicate a well organized class and not necessarily a well taught one. It is very gratifying to have members of the class show what is usually called "interest in the work," yet one of the most interested students I ever enrolled was a mail carrier who lived in town, kept one horse and found in the course, a satisfactory way to spend his evenings.

A large enrollment and interest are desirable but there are two other things which seem to me far more important as a measure of the success of any course for farmers. First, each meeting should result in specific accomplishments directly related to the course objective. Second, the course as a whole should create in at least part of the student body an attitude of mind which will result in continued study, growth, and accomplishments.

Examples of these two types of achievement are to be found in the two short courses conducted last year by the agricultural department of the Lambertville, N. J., High School. Courses in both dairy husbandry and poultry husbandry, consisting of ten meetings each, were conducted but for the sake of brevity, I shall confine most of my examples to the poultry course and a few of the students who have attended the course for more than one year. One of this group, a young man just starting to farm for himself, had never kept chickens before. Another had been in the poultry business for four years, but had not succeeded with it. Two others I shall mention in particular had practically given up hopes of succeeding with chickens. These students have put into practice at home many of the recommendations on brooding, feeding, housing, and marketing taught in the course. They have built and remodeled houses, built range shelters, hatched chicks, mixed rations, introduced electric lighting, and installed pressure water systems.

One student, as a result of a class on methods of marketing eggs now sells his eggs to a high-class grocer in Trenton in a special carton designed by himself. Selling in this way he has been able to get at least 10 cents a dozen more than he formerly got on the wholesale market. "Rosemary Farm Eggs" are featured by this grocer and the flock has had to be enlarged to supply the demand. Coccidiosis had caused heavy losses in this man's chicks every year for four years. Evening course instruction has resulted in his raising so many more chicks than usual that he had to build an addition to his chicken house as well as fill six brooder houses with pullets. As an indication of the continued growth of this student, he has entered a pen of birds in the Vineland egg-laying contest and they are now in second place. As additional evidence of the change in his mental attitude, he has installed lights in the basement under his chicken house and is using the barracks system on his cull hens.

This man was about ready to quit the business two years ago and came 15 miles to the meetings in a last and what proved to be a successful attempt to control a serious difficulty with his adult birds. Recently he made the statement that he actually felt prosperous in spite of the low egg prices and the general depression.

Evening Class Student has a good flock of Barred Rocks—Lambertville, N. J.

Another student several years ago kept about 150 chickens. Records showed that he was losing money so two years ago he reduced the flock to 35. At this time, he enrolled in our evening class. In most particulars, he has followed methods advocated in the course and now has 450 layers producing without lights over 200 eggs a day. He had attempted to make a living on his 35-acre farm by operating an eight-cow dairy. He has now disposed of most of his cows, however, and the straw-shed part of his barn has been remodeled to house chickens. The 18-foot ceiling has been lowered with the aid of 2 x 4's and insulation board to 8 feet. The scattered poles on which the straw formerly rested have been replaced with a tight floor; large openings have been cut all along the 80-foot side and these have been provided with sliding cello-glass frames; neat tiers of egg cases provide nesting facilities; wired dropping boards, roosts, mash hoppers, and watering stands complete a thoroly adequate, but inexpensive, lay-out. In the pasture formerly used by cows, are three range shelters built during the past summer. He has definite plans for expansion which include the installation of electricity. This man was discouraged about poultry work two years ago, but has an entirely different attitude of mind today.

A third student interested in breeding work, in addition to following the recommendations of the course, hatched 250 pedigreed White Wyandottes last summer. Twenty-five of the cockerels from this flock have been sold for breeding purposes. A pen of the pullets is now entered in the Passaic egg-laying contest. This pen is fourth highest White Wyandotte pen in the United States for the year and second for the last month. As a direct result of specific meetings, a brooder house and two range shelters have been built, water under pressure has been piped to the laying house, electric lights have been installed, automatic waterers and dry-well drains have been constructed. This student had not raised a pullet for two years previous to beginning short course work. The flock was decreasing steadily and would doubtless have been abandoned entirely in another year.

My last example concerns a young man who bought a farm two years ago just after attending the first meeting of the evening school. Last year he remodeled an old-style narrow chicken house by putting in a concrete floor, drain, and water under pressure. The roosts were changed to one end and a large opening cut in the side. White Leghorn pullets were purchased and installed and records have been kept on them for over a year. Early this fall he enlarged a brooder house and installed Barred Rock pullets keeping records for

(Continued on page 148)

Farm Mechanics

Farm Machinery and Farm Shop Equipment Survey

H. D. ELDRIDGE,
Greeley, Colorado

THE vocational agricultural classes of Greeley High School have conducted a farm machinery and a farm shop equipment survey over a three-year period. Thirty-two farms in the Greeley district were chosen at random for the survey. Farms in all directions from Greeley were inventoried regardless of size, location, or valuation. The survey will be continued over a period of five years, altho we feel free to publish the results obtained to date as authentic and reliable.

The reasons for making the survey were as follows:

(1) To encourage inventory taking at the slack time of year.

(2) To determine the average amount of money which the average farmer in the irrigated section has invested in farm machinery and farm shop equipment.

(3) To list the machinery and the farm shop equipment to be found on the typical farm.

(4) To determine the winter care given to farm machinery.

A sale inventory price was placed on all machinery and farm shop equipment. In no case was the actual replacement value considered. In other words, one-half of the cost price or roughly equivalent to its value at a public sale was taken as the present inventory value. This accounts for the low average figures quoted on the farm machinery and farm shop equipment to be found on the typical irrigated farm. Our survey of 32 farms indicated that $2,420.43 was the average amount of money invested in farm machinery. This investment ranged from $1,054 to $5,105. Similarly, the average amount of money invested in farm shop equipment was found to be $159.80. This investment varied from $50.50 to $636.

It would be difficult, if not impossible, for any man to say just what his investment is in farm machinery and tools unless he has recently taken a careful inventory. This can best be done at the slack time of year when more time is available and when the supply of feed, seed, and so forth, is at its lowest.

Besides putting farming on more of a business basis, the matter of making an annual inventory has other advantages:

(1) In going over machinery, attention will be called to the greasing, oiling, and repair jobs which must be attended to before spring work starts.

(2) It makes it desirable to concentrate tools in one place.

(3) It provides occasion to check on tools which have been lost, loaned, or stolen. Neighbors should be called and asked to return the wire stretchers which they borrowed last April. Incidentally, the tools which have been borrowed from the neighbors should be returned.

The rate of depreciation on farm machinery is often high. This is not due to inferior machinery but to carelessness on the part of many farmers in protecting machinery from weather changes.

A short but conclusive test was made to determine the kind of care farm machinery receives on many farms. Two boys in a car were sent north of Greeley and two south with instructions to travel at a speed of 35 miles an hour and to return to the starting point in exactly one hour. They were to list all farm machinery left exposed in fields. This is what they found November 27, 1930:

Nine mowing machines, 2 potato cultivators, 21 bunch rakes, 5 potato diggers, 2 beet cultivators, 10 riding plows, 6 walking plows, 5 harrows, 1 roller, 5 Fresnoes, 5 manure spreaders, 4 side-delivery rakes, 3 potato sorters, 1 bean cutter, 2 beet pullers, 3 binders, 2 potato planters, 7 wagons, 2 grain drills, 4 discs.

It was not the purpose of this survey to expose the shortcomings of farmers in the Greeley district. There are few localities in the United States in which a higher type of farmer is to be found. However, the fact remains that even on some of the finest farms in the country much improvement can yet be made in the selection and care of farm machinery.

Boys Can Be Trusted

DONALD PHARIS,
Richmond, Mo.

I FIND it pays in shop work to let the boys know that the shop and all its tools and equipment is their very own, to use any time they want to and can. I never check out tools to the boys, and after 10 years of experience have had almost no losses from stealing.

At the beginning of the year the boys elect a tool manager, whose business it is to see that the tools are returned at the end of shop periods to their proper places, and in proper condition. That takes a big load off the teacher. I used to check up on the tools every day myself; it's a big worry to the teacher, but a fine responsibility for the boy, and good training.

My boys are encouraged to work Saturdays and after schools in the shop, and their teacher is rarely around to help or supervise them. Boys are intrinsically honest, I believe; especially if they know they are trusted, and that the shop and all its equipment is their own, to use and care for as they would personal property.

ESSENTIALS OF ADULT EDUCATION

"Those who have thought much on the subject have given up the idea, at present, of stating accurately just what adult education is. They are content, for the time being, to give some outstanding characteristics of formal adult education, namely:

(1) The work must be voluntary;
(2) it must be taken during leisure time;
(3) it must be somewhat continuous and consecutive."

—L. R. Alderman, Specialist in Adult Education, United States Bureau of Education.

Agriculture Class Improves Building

JOE W. STONE,
Teacher of Agriculture, Columbiana, Alabama

AN IMPORTANT activity of the class in vocational agriculture of the Shelby County High School has been the repair and improvement of their shop. A year ago their shop building was in bad condition and the shop was lacking in proper equipment.

Some of the conditions a year ago are as follows: Leaky roof, building not ceiled, no steps, only five work benches, only six wood vises, no blackboards, no bookcases, no paint cabinet, only a small hand forge, no lumber racks, no bolt, nail, and supply cabinet, three doors about rotted down, about half enough books, putty off the windows, one-third of the building needed flooring, no room to store supplies and junk.

During the year the following improvements were made: Measured and estimated and put on tin roof, estimated amount of lumber and ceiled the building, built steps, estimated material and built 18 work benches, bought and put up wood vise, bought and put up two blackboards, built and put up paint cabinet, estimated material and built big brick forge, built lumber racks, and bolt, nail, and screw cabinet, built and put up three doors, bought $200 worth of new tools, puttied 200 window panes, floored one-third of the building, and built a supply room 14 x 14.

The shop is now in good condition and well equipped. During his four years in vocational agriculture a boy may receive training in woodwork, planning and drawing farm buildings, sharpening farm tools, painting, rope work, putting in handles, repairing harness, soldering, repairing and building farm buildings, repairing farm machinery, concrete structure, electric wiring, plumbing, repairing motors, surveying and leveling fencing, drainage, use of explosives, and laying out farmstead.

This type of training fits a boy to do almost any job to be found on the farm and should result in better and better-kept farms, farm homes, and farm buildings.

Kansas Shop Bulletin

Kansas State Agricultural College announces Bulletin No. 24 of the Engineering Experiment Station, entitled, "School Shops for Vocational Agriculture," by E. C. Graham. This bulletin deals with the school shop for vocational agriculture and discusses such subjects as costs, details of construction, arrangement and design of equipment, care of tools, building plans, tools and equipment recommended, list of useful books on farm shop work and free bulletins and circulars in this field. The publication is well illustrated and is available for free distribution.—A. P. D.

The hit and miss plan usually misses.

Supervised Practice

The Present Trend in Project Work

PAUL F. SWEITZER,
Cody, Wyoming

IT SEEMS to me that the present-day trend in our project work is along a more sensible line since the goal, not primarily a financial success, is to teach the boy actual facts that he learns by doing. At one time our state program required the goal of every project to show at least $100 net profit, thus placing finances above everything else. During these times of so-called depression it is well for us to strive for something besides money in teaching the project phase of our work.

In my experience I have always believed that a few things thoroly learned and demonstrated thru the medium of a project are far more valuable as a product of our projects than the dollars and cents that may be gained.

Every boy must select and carry a project according to his own circumstances and each project should be so planned that there is a reasonable chance of making money, or at least breaking even on his venture. But beyond that the really worthwhile value of this work is the fact that it gives the boy an opportunity to carry out his own ideas, to put in practice what he is taught in the classroom and to teach him initiative and responsibility. These lessons are not taught from books and they will serve him to advantage in later life, no matter what vocation he may follow.

We should encourage the student to outline his project on as large a basis as is feasible and to make it on a longer time basis than is actually required by law. I am a sincere believer in the continuation project and if a boy is really interested in his work he will end up with something really worthwhile and with a wider and deeper appreciation of his subject than can be gained by projects of shorter duration. By carrying a project over a period of two or three years, rather than for a few months, the boy is growing into a business and forming business habits, hardly knowing it himself. By conscientious application of the school instruction he receives, his is a project to be admired.

So I say that we are realizing more and more the value of projects if carried for a longer period of time with profit of secondary importance. We are headed in the right direction—but we still have much to accomplish.

HEAD UP!—OR HEAD OUT!

"One should not engage for long in a work with which he is not proud to be connected. If one cannot feel that his work is important he should leave it and go into something for which he has a profound respect, and if he believes in his work, he should strive to do it so well that others will hold it in high esteem." — F. D. Farrell, President, Kansas State Agricultural College.

A Long-Time Supervised Practice Program

F. Z. BEANBLOSSOM - Cleveland, Ohio
WARD CHASE - - - - - - Alva, Okla.
J. B. PERKY - - - - Woodward, Okla.

THE problem of building up, with each boy in the vocational agricultural class, a functioning long-time supervised practice program is not a very simple problem. Such a program must correlate with the instruction offered in the class and at the same time meet the vocational need of the boy.

In this discussion the term "Supervised Practice" includes the agricultural projects a boy is carrying and the supplementary farm practice work not included in the projects.

In order to make it very clear how a functioning long-time supervised practice program, for any boy in a vocational agriculture class, can be logically and systematically developed this article is divided into three distinct parts: (1) An outline of the first two years' work of the agricultural curriculum; (2) A boy's long-time supervised practice program; and (3) An outline of the supplementary farm practice work not included in the projects the boy is carrying or proposes to carry.

PART I—Outline of the Agricultural Curriculum

FIRST YEAR'S WORK

Major Farm Problems	*Farm Enterprises Involved in Major Problems**	*Farm Jobs Involved in Enterprises**
1. Feeding livestock and poultry	1. Poultry Production	1. Feeding laying hens 2. Feeding chicks 3. Fattening for market
	2. Milk Production	1. Feeding milk cows 2. Feeding the calf
2. Selection of plant varieties	1. Corn Production	1. Choosing the variety 2. Selecting seed corn
	2. Wheat Production	1. Det. type to grow 2. Choosing the variety
3. Selection of livestock and poultry	1. Pork Production	1. Selecting a good gilt 2. Selecting fat hogs
	2. Beef Production	1. Selecting feeder steers 2. Selecting a cow
	3. Sheep Production	1. Selecting a breeding ewe 2. Selecting fat lambs 3. Selecting feeder lambs

*This list of "Farm Enterprises" and "Farm Jobs" thru which the objectives of the instruction are to be attained is not complete but is merely illustrative of the kinds which would have to be selected in reference to each major farm problem included in a year's work.

SECOND YEAR'S WORK

Major Farm Problems	*Farm Enterprises Involved in Major Problems**	*Farm Jobs Involved in Enterprises**
1. Care and housing of livestock and poultry	1. Milk Production	1. Care of cow at calving 2. Housing dairy cattle
	2. Pork Production	1. Choosing a type of hog house 2. Care of brood sow
	3. Poultry Production	1. Det. poultry house improvements 2. Housing the farm flock
2. Control of pests of livestock and poultry	1. Beef Production	1. Controlling mange 2. Controlling ringworms
	2. Sheep Production	1. Controlling sheep worms 2. Controlling grubs
	3. Poultry Production	1. Controlling lice 2. Controlling mites

3. Improvements of plants	1. Sorghum Production	1. Selecting good seed 2. Det. ways of improving the yield
	2. Corn Production	1. Certifying seed corn 2. Buying certified seed
	3. Wheat Production	1. Grading wheat 2. Selecting seed wheat

*See footnote under "First Year's Work."

PART II—A Boy's Supervised Farm Practice Program

First Year	*Second Year*	*Third Year*
Raising two dairy heifers	Two cows	Two cows
5 acres sudan pasture	Two calves	Two heifers
Supplementary farm practice Not included in project program (See Part III-A)	5 acres sudan pasture	Two calves
	20 acres wheat	5 acres sudan pasture
		20 acres wheat
	Supplementary farm practice not included in project program (See Part III-B)	10 acres alfalfa
		Supplementary farm practice not included in project program (Not outlined in this article)

PART III—Supplementary Farm Practice*

A—In Connection With First Year Agriculture

Beef Production—
1. Fitting animals for show.
2. Showing beef animals.
3. Dehorning steers.
4. Fattening steers for market.
5. Providing pasture.
6. And so forth.

Corn Production—
1. Selecting best variety for home crop.
2. Selecting seed in field.
3. Buying seed corn.
4. Det. place of crop in home rotation system.
5. And so forth.

Poultry Production—
1. Selecting pullets.
2. Keeping records on home flock.
3. Feeding chicks.
4. Feeding the home flock.
5. Culling the home flock.
6. And so forth.

Wheat Production—
1. Treating seed for smut.
2. Grading wheat.
3. Selecting good seed.
4. Selecting variety for home farm.
5. And so forth.

*Very incomplete and merely suggestive of the kind of supplementary farm practice which would correlate with the instruction.

B—In Connection With Second Year Agriculture*

Poultry Production—
1. Keeping poultry house sanitary.
2. Controlling scaly leg.
3. Controlling mites.
4. Controlling lice.
5. Improving the home poultry house.
6. And so forth.

Sheep Production—
1. Controlling grubs.
2. Docking lambs.
3. Castrating lambs.
4. Providing shelter for home breeding flock.
5. And so forth.

Pork Production—
1. Controlling lice.
2. Providing adequate shelter for home herd.
3. Weaning pigs.
4. Care of brood sow.
5. And so forth.

Corn Production—
1. Testing seed corn.
2. Grading seed corn.
3. Selecting good seed for planting.
4. Fertilizing the field.
5. And so forth.

*Very incomplete and merely suggestive of the kind of supplementary farm practice which would correlate with the instruction.

In general, an ideal long-time supervised project program should:

1. Represent a cross section of the type of farming the boy proposes to engage in later. This bears a close resemblance to the type of farming of the community.
2. Provide for major projects correlated with the school instruction.
3. Include whenever possible contributory projects.
4. Include cash crops.

The supplementary farm practice work, not included in the project program, should be an outgrowth of the instruction offered and always serve as the application step of the instruction process.*

*Prof. G. A. Schmidt of the Colorado Agricultural College, assisted in the preparation of this article.

Utilizing Crop Projects for Teaching Storing and Marketing

RAY L. HAHN,
Willimantic, Connecticut

THE ultimate disposition of the crop in the final inventory for a crop project is fully as important as what preceded the inventory. For learning values and instructional purposes it may be more so. A description of an actual case will amplify these statements, and perhaps call attention to a teaching opportunity overlooked at times.

The student raised the crop and sold about one-third prior to inventory. He might have sold the balance but decided to store it. The project in storing and marketing the balance is the basis of this article. Altho the storage project did not parallel the production project in time, a brief summary is given here in parallel columns to furnish the reader a condensed picture of the situation and to clarify some later remarks. The figures were taken from successive annual reports to the state supervisor.

Projects	Producing ½ Acre Late Potatoes	Storing and Marketing 55 Bus.
Crop quantity	78 bus.	55 bus.
Accounting period	Nov. 1, 1926 to Oct. 31, 1927	Nov. 1, 1927 to Mar. 1, 1928
Second inventory	$91.16	None
First inventory	1.50	$90.00
Labor of student	69.1 hrs. } 20.73 }	5 hrs. } 1.50 }
Labor hired	17.48	None
Expenses (other than above)	57.67	$ 7.77
Total Debits	97.38	99.27
Receipts (cash and credit)	32.82	61.25
Total Credits	123.98	61.25
Profit or Loss	26.58	—38.02
Student labor and profit	47.31	—36.52

Of the items enumerated, all seem self-explanatory except the group, "Expenses (other than above)." In the production project this included horse labor, fertilizer, seed, spray material, rent of land, rent of equipment, and interest on growing costs. In the storage project, rent of storage, rent of equipment, and interest on storage costs were included.

The obvious difference between the storage and production projects is the loss on storage and the gain in producing. The net result is that one practically cancels the other. The contrast would have been pretty well hidden if they had been treated as one project and the accounts not closed until the final sale. The difference in learning values in favor of the separate continuation project is important but less evident.

Judging from subsequent observations of the student and discussions with him, the distinction between producing and marketing the crop made him conscious of his relative abilities in the two activities. It did more than that. He made a forecast of future price and demand and acted on it. He chose to store. General economic conditions changed from abstractions to realities for him. He found that shrinkage included rat damage, and that shrinkage from November to March did not "average" 8 to 10 percent for him. His shrinkage was 20 bushels, 35 percent. He concluded that, under his conditions, he would have succeeded as well by selling in

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Part-time Courses

Oregon Part-time Class Gets Results

R. M. ADAMS,
Teacher of Agriculture,
Forest Grove High School, Oregon

THE writer well remembers the misgivings that he had in starting his first farmers' evening school, but they were small beside those which beset him when he finally decided to try a part-time school. In considering an approach to this entirely new venture in the Forest Grove Community, it was decided that the greatest need was for an enlightened and favorable public opinion toward this work. Therefore, about a year before the first meeting of the school was called, advantage was taken of every good opportunity to talk and discuss before farm organizations, with leaders in community life, and with prospective students themselves, the possibilities and benefits of a short course for boys not in school, who were between the ages of 16 and 25. The boys in the day school were also consulted.

By keeping eyes and ears open for prospects and by talking with the day school students, a list of some 45 prospective part-time boys was compiled during the spring of 1929. During that summer and fall a quiet campaign of education was continued. Some few of the prospects were visited and in November and December several newspaper articles, telling of the plans for a short course, were published in the local paper. About six weeks before the first meeting was actually called a mimeographed letter was sent to each prospect explaining the opportunity offered them and listing about ten different lines of study in which they might be interested. They were asked to check the courses they would like to pursue and to return the form. Out of some forty such questionnaires, eight were returned. This seems a small percentage but every one of these eight became regular attendants at the school.

The first meeting was delayed several weeks on account of bad weather but we were able to start the last of January. Thereafter we met every Monday and Wednesday night for the duration of the course. Eleven boys came the first night and a more bashful, reticent, and speechless group was never encountered. An effort was made to use the conference method to ascertain the common interests and desires of the group but when this did not prove satisfactory the answers received in the questionnaires and personal interviews were recalled. The course was finally organized with these as the basis.

The second meeting was spent discussing, before the entire company, the problems of each group. When the boys found that the leader desired to be helpful, not critical and "hard-boiled," and that past schoolroom experiences were not to be duplicated, they started to "warm up" to the conference method. They were assisted in this respect by the fact that they were permitted the use of the high school gymnasium each meeting night from 9 to 10:30, when instructor and class all played basketball. As a result of the wearing away of the feeling of embarrassment it was found that all of the boys were interested in some form of shop work. They were then re-grouped into those desiring instruction in carpentry, blacksmithing, and sheet metal work.

One evening in the shop with these various groups, ten boys in all, convinced the instructor that their need of individual attention and instruction was so great that it could not possibly be supplied in an adequate fashion by one person. Thereupon the local blacksmith, the plumber, and one of the town's best carpenters were prevailed upon to assist in the instruction. The blacksmith first took all ten boys for one night's demonstration and instruction, then the carpenter another night, and finally the plumber. After that, each tradesman took the group most interested in his field and assisted them to carry thru to completion their various projects. Grain scoops and dust pans; punches and chisels; mash hoppers, milk stools, and rafters cut to pitch, resulted.

The instructor spent his time assisting where most needed in all three groups. The tradesmen became so interested in helping the boys that they would have continued far beyond the 15 meetings. The use of tradesmen of recognized ability not only assisted in

Part-time Work in the Negro Schools

H. O. SARGENT,
Federal Board for Vocational Education

ON ACCOUNT of the need of their help in harvesting and planting the different crops in the South, the large majority of Negro farm boys enter school late in the fall and drop out early in the spring. When these boys enter school late and are allowed to enroll in the regular school classes in agriculture and other projects they are behind and drag along and soon become discouraged, the majority of them dropping out never to return to school again.

In the states of South Carolina, Oklahoma, and Arkansas, arrangements have been made for these pupils to attend part-time class regularly every day for two to four months during the slack winter season. While these pupils attend school they are put in separate classes and are given intensive courses in agriculture and other subjects. As a rule they make very rapid progress. Some few are able to finish the scholastic work in four months, others take two years. Very often after a pupil has taken a part-time class and caught up with the regular all-day class then he will enter the all-day class. However, so far there has always been plenty of boys left in the community to come in and take their places and most of the part-time classes have been able to continue from year to year.

The greatest difficulty so far in putting on this type of part-time work has been arranging the teacher's daily schedule in order to accommodate this class. This difficulty has in many instances been overcome by employing the vocational teacher of agriculture for part of the year, that is, in the early part of the school session on part time and when the crops are harvested and a part-time class can be organized to employ some one else, usually a woman, to take over his non-vocational work and let him devote his entire time to the all-day and part-time classes.

In addition to this group, there are two other groups of Negro students taking part-time work:

1. Those boys who have quit school and during the slack season secure a job, such as cutting timber and working on roads. Since these boys are working and cannot attend school during the day, the part-time class is put on for two to three times per week during the evening; and, (2) the pupils who have dropped out of school and only work on the farm—for this type a part-time class is organized and conducted in the slack season during the regular school day.

So far there is a much larger percentage of Negroes taking part-time work than there is of the whites.

Since every pupil enrolled in part-time work is from the farm and is engaged in farming, there is also a much larger percentage of these pupils who follow farming than do the all-day pupils.

For the year 1928-29, there were 110 part-time classes for Negro boys in the South, with an enrollment of 1,408 boys, and for the year 1929-30, there were 128 part-time classes, with an enrollment of 1,439. The per teacher enrollment in part-time classes is usually low. Very few of the boys are in the same grade and the instruction must be largely individual so a teacher cannot handle a large group. For the year 1928-29, the average teacher enrollment was 12.8 pupils and for 1929-30 it was 11.24 pupils.

Part-time Instruction Causes Alabama Boys to Re-enter Schools

F. A. PITTMAN,
Cherokee, Alabama

PART-TIME work was started the first year of the high school and during the past seven years we have given instruction to seven classes with a grand total of 92 students. The group that we have worked with range in age from 12 years to 21 years, with the exception of a few over 21 years old. We attempt to reach men over 21 thru the evening school classes.

I have used several means of securing enrollment of part-time students, namely: personal letters, business men's organizations, personal visits, and F. F. A. Chapter. The best method that I have found is thru the F. F. A. Last

(Continued on page 148)

Our Dream Farm

C. B. MAY,
Des Plaines, Illinois

IT HAS long been the contention of many modern educators that youthful minds learn best by doing. Here at Main Township High School in Des Plaines, Illinois, there is what seems to be a splendid opportunity for learning in the best way.

It is not every school, even far out in farm areas where land is cheap, that has a 60-acre campus. However, that is just what we have here at this suburban high school. Sixty acres of land worth in the neighborhood of $3,000 per acre—level, low lying, black, clay loam—stretch south from the school building. Of this 60 acres the agriculture department will fall heir to about 30, which it is our desire to turn into a small farm and handle all the diversified farm jobs.

At present our scheme does not look so very ambitious. We have about 25 acres plowed and are busily constructing plans for the utilization of the plowed soil, but we have no farm buildings of any sort and no permanent improvements whatever. Our farm machinery list includes a second-hand

The Dreamers of Des Plaines, Illinois, and their Dream Farm

Fordson tractor and a two-bottom Oliver plow, purchased at a cost of $300. We plan to purchase very shortly a tandem disk, a two-section, spike-tooth harrow, and a large-size Meeker harrow. These articles of farm equipment together with a Planet Junior seeder, a half-dozen wheel hoes, about 25 assorted hoes, and the same number of rakes comprise the list of farm machinery for immediate purchase and use. Most of these we already have.

Some schools have tried the plan of borrowing agricultural machinery from local dealers, no doubt considering that the advertising to the merchant reimburses him for the loan of the tools. For the present at least, we shall not attempt any such plans.

Our spare time we put in dreaming, and what dreams we do have! Some time in the far-off, nebulous future, we hope to see a house for the Ag. teacher, barns, machine sheds, fences, a complete set of farm machinery including hay tools and harvesting tools (all of which can be bought at farm sales for little or nothing) and everything else which is needed to complete a farm picture on a small scale. We dream also of four or five cows, three or four brood sows, four or five ewes, a flock of chickens—say 500 in number—properly housed and trapnested. In short, we hope to transform these 30 acres into a modern agricultural Utopia on a small scale. The dreams probably will not be realized for some time, but so far as we can see there is no reason why they shouldn't come true in the course of a few years.

F. F. B. Legge Presents Interesting Figures

CHAIRMAN LEGGE of the Federal Farm Board gave figures regarding returns on small and large production before a large audience of farmers at the Iowa State Fair. The following paragraphs are extracts from his speech:

"The answer to what the farmer can and must do to put himself on a parity with other industries is contained in the one word 'organization.' Acting together collectively there seems to be no fundamental reason why he might not regulate his operations just as effectively as the most highly organized corporation in existence and because of the fact that most of what he produces is foodstuffs on which the quantity consumed will from year to year vary much less than the possible variation in most manufactured products, it would seem entirely practicable to make his operation in this respect even more effective than any other line of producers.

"To illustrate this, if times are hard and money is scarce people do not feel encouraged to make an investment. One can wear his old clothes a little longer, continue to run the old car and not replace it as frequently as had been the practice in the past and so on thru pretty much the whole line of manufactured products, which action results in subnormal consumption.

"In foodstuffs, while it is true that in times of unemployment and depression there is tendency to increase the consumption of low cost items at the expense of those that are relatively more expensive, yet on the whole there is very little difference in the quantity consumed. For this reason, when the farmers are able to exercise the same degree of control over their production as must be done by the manufacturer if he is going to live at all, it seems obvious to me that the farmer will suffer less than any other class during a period of depression such as we are now passing thru, for the simple reason that his product is one on which there is the least possibility of reduction in quantity consumed."

"Any study of market fluctuation on farm commodities over a period of years indicates clearly that the farmer's gross income is always better, the commodity always brings the greatest return in years of moderate production rather than in periods of overproduction.

"The corn crop in the last 10 years with the largest farm value was that of 1924 and it was by far the smallest. The records of the department of agriculture show that it was approximately 2,300,000,000 bushels with a farm value of $2,226,000,000. The corn crop the following year was 600,000,000 bushels greater and had a farm value of $300,000,000 less. The crop of 1923 was 700,000,000 bushels more than that of 1924 with a farm value of $50,000,000 less.

"In the case of hogs, the smallest production of the last six years brought farmers the most money. In 1926 the live weight of hogs slaughtered under federal inspection totaled 9,633,000,000 pounds, for which the producers received $1,120,000,000 and in 1929 the slaughter was the largest of the six-year period amounting to 11,353,000,000 pounds and the producer received $1,052,000,000. Thus for a crop of 1,720,000,000 pounds more the producer was paid $68,000,000 less. The number of hogs produced in 1926 was 40,000,000 and in 1928 it was increased to 49,000,000. For a crop of 9,000,000 more hogs, the farm value was $140,000,000 less.

"The smallest production of beef cattle the past six years also brought the most money to the grower. That was last year when the slaughter under federal inspection was 7,949 million pounds, with a value to the producer of $968,000,000, whereas the biggest production of the six-year period, that of 1926, was 9,814 million pounds of 1,865 million pounds more than that or 1929 and brought only $943,000,000. Thus for a crop nearly 25 percent greater the producer received $25,000,000 less.

"Cotton furnishes another striking example of the small crop yielding more to the producer than the large one. The 1923 cotton crop was the smallest in recent years, being 10,140,000 bales, and had a farm value of 1,572 million dollars which was the largest return on any crop of the past 10 years. The biggest crop in that period was in 1926 and amounted to 17,977,000 bzles, or 7,837,000 more than the crop of 1923. The bumper crop was worth on the farm only $983,000,000, or $589,000,000 less than the cotton farmers got in 1923 for 7,837,000 fewer bales of cotton.

"The crop that perhaps is most sensitive to over production is potatoes. This crop is largely consumed the year it is grown and the demand for potatoes remains about the same from year to year. The smallest crop in the past six years brought potato growers by far the most money. In 1925 they produced approximately 321,000,000 bushels with a farm value of around $530,000,000. The bumper crop of that six-year period, which was in 1928, totaled 463,000,000 bushels with a farm value of only $288,000,000. In other words, in 1928 farmers raised 142,000,000 bushels more potatoes and their crop was worth $242,000,000 less than in 1925."

Another Turkey Grower

LARUE BARNUM, an active member of the Future Farmers organization at Overton, Nevada, is making good as a turkey farmer. He tells us of his success as follows:

"Last fall I became interested in the turkey business and decided to carry a turkey project in connection with my agricultural course at high school.

"My father was willing to lend me enough money at 8 percent interest to get started with 30 turkey hens and 2 good toms for breeding stock. These toms and hens cost me $123.50. I knew that the only way I would be able to succeed would be by getting and using all the information I could get at school and from the best turkey producers in the valley. This is what I did and altho I made many mistakes, I have a good start and will be able to do better next year because of my experience.

I now have 250 turkeys which I value conservatively at $2 each or $500. I am now closing my books for the year and find that I have made a total net profit of $112.76 and a total labor income of $158.90.

"I am going to buy an incubator and develop a larger turkey enterprise for next year."

Future Farmers of America

Second Annual National F. F. A. Public Speaking Contest

(Announcement Issued From the Office of the National Executive Secretary)

IN ACCORDANCE with the recommendations of the Third Annual Congress of the Future Farmers of America and the Agricultural Section of the A. V. A., the Second Annual National Public Speaking Contest for members of the Future Farmers of America will be held in connection with the National Congress of Vocational Agricultural Students at the American Royal Livestock Show, Kansas City, Missouri, November, 1931.

General Plan

Since one of the aims of the national organization of Future Farmers of America is to develop rural leadership, there appears to be a splendid opportunity for encouraging such a development thru agricultural public speaking contests. These contests are of local, state, and regional character, culminating in the national contest at Kansas City.

The national contest has again been made possible thru the kindly interest of Senator Arthur Capper of Kansas. As owner and publisher of the Capper Publications, Senator Capper will again provide appropriate prizes for and defray the participation expenses of four boys in the Second National F. F. A. Public Speaking Contest to be held under the rules set forth in this announcement.

Eligibility

1. The contest will be limited to participation by one boy representing each region herein listed, who shall have been determined winner in a regional contest held within the year November 1, 1930, to November 1, 1931.

North Atlantic Region (13 states)—one representative.

Central Region (12 states)—one representative.

Southern Region (12 states)—one representative.

Western Region (11 states and Territory of Hawaii)—one representative.

2. The contest will be open only to regularly enrolled vocational agriculture boys in all-day classes who are successfully carrying at least three units of regular school work and who are actually members of chartered chapters of F. F. A. in good standing with the state and national organization at the time they are selected to represent their state in a regional contest. Any boy who received training in composition or delivery for this contest outside of his local school will be disqualified but facts and working data may be secured from any source.

3. Boys who participated in regional or the national F. F. A. public speaking contests during 1930 are ineligible to compete in the 1931 regional and national contests.

4. The contestant who has won the right to compete in the national contest by having been declared winner in a regional contest must file with the regional agent thru his teacher of vocational agriculture and the State Supervisor of Agricultural Education, at least ten days prior to the national contest (by November 5), four double-spaced typewritten copies of his production, accompanied by a signed statement of its originality, and four gloss finished photographs of himself.

5. The Regional Agent for each region must file with the National Adviser of the F. F. A., the material listed in the previous paragraph, accompanied by an eligibility certification slip, at least one week prior to the National Contest (by November 10).

Subjects

The following subjects are only suggestive as any other timely agricultural subject may be selected:

1. "What the F. F. A. May Mean to American Agriculture."
2. "The Relation of the Farmer to the Success of the Federal Farm Board."
3. "Co-operative Marketing as a Solution of Farm Problems."
4. "The Opportunities for and Limitations of Corporation Farming."
5. "What My Home Project Work in Vocational Agriculture Has Taught Me About Farm Operation and Management."
6. "Equalization of Taxes as a Farm Relief Measure."
7. "The Machine Age and Its Effect on American Agriculture."
8. "The Value of the Federal Farm Loan System to the American Farmer."
9. "Rural Electrification."
10. "The Future of the American Farmer."

Time Limit

Each production by a contestant will be limited to 10 minutes in length and each contestant shall be allowed 5 minutes of additional time to defend his production on questions which *shall* be asked by the judges.

Selecting Winner

1. The National Board of Trustees of the F. F. A. in co-operation with the National Committee responsible for vocational agriculture contests will be in charge of this contest.

2. Three competent and impartial persons, one of whom shall be designated to act as chairman, will be selected to judge the contest.

3. Prior to the contest, the judges shall be furnished with the typewritten copies of the contestants' productions which they will grade and record on the score sheets which will be provided.

4. At the time of the contest, the judges will seat themselves apart from one another in different sections of the room in which the contest is held and will score each contestant upon the delivery of his production, using the score sheet provided. A timekeeper shall be designated who will record the time consumed by each contestant in delivering his production, noting overtime used, if any, in excess of 10 minutes for each contestant, for which deductions shall be made.

5. Participants in the contest shall draw for places on the program. The program chairman shall call each contestant by his name and announce his subject in the order of the drawing.

6. When all contestants have finished speaking the chairman of the judges will collect the score sheets from each judge, and the timekeeper's sheet and a decision shall be made by all judges in conference.

Awards

1. Travel and subsistence from their homes to Kansas City and return for each of the four contestants in the national contest will be allowed. *Each contestant should keep an accurate record of all travel and subsistence expenditures.*

2. Cash prizes to be awarded to the contestants are announced as follows: $400; $300; $200; $100.

Judges' Score Sheet

I. For Scoring Content and Composition

Items to Be Scored	Points allowed
1. Content of the manuscript	25
2. Composition of manuscript	15
Score on written production	40

II. For Scoring the Delivery of the Production

Items to Be Scored	Points allowed
1. Voice	10
2. Stage presence	10
3. Power of expression	15
4. Response to questions	15
5. General effect	10
Score on delivery	60

III. For Computing the Score of the Contest

Items Included	Points allowed
1. Score on written production...	40
2. Score on delivery.....	60
Totals	100
Less overtime deductions	2 points for each minute
Grand totals	

Explanation of Score Card Points

I. Content and Composition

1. Content of the speech, includes:
   Importance and appropriateness of subject.
   Suitability of the material used.
   Accuracy of the statements included.
   Evidence of purpose.
2. Composition of the speech, includes:
   Organization of the content.
   Unity of thought.
   Logical development.
   Language and sentence structure used.
   Accomplishment of purpose—conclusions.

II. Delivery

1. Voice, includes:
   Quality.
   Pitch.
   Force.
   Articulation.
   Pronunciation.
2. Stage presence, includes:
   Personal appearance.
   Poise and body posture.
   Attitude and ease before audience.
   Confidence.
   Personality.
3. Power of expression, includes:
   Fluency.
   Emphasis.
   Sincerity.
   Directness.
   Communicative activity.
   Conveyance of thought and meaning.
4. Response to questions, includes:
   Ability to satisfactorily answer the questions on the speech which are asked by the judges.
5. General effect, includes:
   Extent to which the speech was interesting, understandable, convincing, pleasing, and held the attention of the audience.

Salisbury Future Farmers Win $1,327 in Prizes

THE Salisbury (Missouri) Chapter of Future Farmers of America was unusually successful during the year 1930 in winning prizes. The total winnings for the year amounted to $1,327. The major winnings of this Chapter consisted of $427.50 in prizes at the Missouri State Fair; $163 in cash prizes, a purebred Poland China gilt, and a purebred Shorthorn heifer at the Mid-West Show held in Kansas City; $300 won by the Chapter in the National Farm Journal contest. Other winnings were made in local shows and the State Corn Show. The local adviser of this Chapter is J. L. Perrin, instructor.

A 28-page booklet, profusely illustrated, entitled "What Is Being Done in Training Future Farmers" has been issued by six vocational agriculture departments in the Eastern Arkansas Valley of Colorado. This little publication is a splendid means of promoting interest in vocational agriculture.

Essex County Chapter Has Sales Booth and Good Program

C. M. WOOD, Vocational Teacher, Hawthorne, Massachusetts

THE Essex County Chapter of the Massachusetts Young Farmers' Association planned and arranged an excellent exhibit and conducted a fruit sales booth at the Topsfield Fair from September 2 to 6 this year. Both of these activities represent the manifestation of the chapter's pledge in its program of work "to support the county fair."

The exhibit covered about thirty feet of table and wall space in the horticultural building and included displays of fruit, field crops, plants and flowers, vegetables, poultry and dairy products raised by the young farmers. The exhibit was arranged to show the total and relative value of the products of various animal and plant enterprises in Essex County. From the sales of apples, peaches, grapes, and cider, $75 was realized to be used to promote the chapter's activities. Members of the chapter made the signs, decorated the sales booth, set up the exhibit, bought and marketed the fruit. Even policing the horticultural building day and night was done by some of the members. Seventy-five thousand persons annually attend the Topsfield Fair, which is one of the largest in Massachusetts.

On March 28 this year 81 young farmers organized the Essex Chapter. The membership is made up entirely of students of the Essex County Agricultural School, Hawthorne, Massachusetts, which is headquarters for Smith-Hughes and Smith-Lever work for Essex County. The objectives of this young farmers' organization are similar to those of the Future Farmers of America with the addition of this objective: "To promote good will and teamwork among all agencies participating in educational, economic, social, or other rural agencies sponsored by federal government and popularly known as '4-H Club' work, 'Smith-Lever' work, and 'Smith-Hughes' work." The late start in the school year prevented many students from joining at the time of organization. There are, however, sufficient students at the present time to carry out the worthy program of work.

1. To send teams to local and state judging and demonstration contests.
2. To conduct project tours.
3. To present an agricultural play.
4. To participate in public speaking.
5. To promote savings accounts.
6. To support county fairs.
7. To send delegates to the F. F. A. state meetings.
8. To hold monthly meetings in floriculture during the school year.
9. To hold monthly meetings in beekeeping during the school year.
10. To hold monthly meetings in poultry during the school year.
11. To hold seasonal dairy, fruit, and vegetable sectional meetings.

Money received from the Topsfield Fair fruit sales enterprise sent vegetable and fruit judging teams to the Brockton Fair where they made a creditable showing. Two project tours have been held. On July 8, 20 freshmen students visited and inspected the vegetable gardening projects of six of their classmates. More than general interest urged the young farmers to compare project notes and get first hand information on the stories reported by the project owners. The second project tour carried 22 students to five student projects where dairy, poultry, fruit, vegetable, and greenhouse enterprises were in active progress. Three students participated in the prize speaking contest held at the Massachusetts Agricultural College on May 2. Nineteen Young Farmers exhibited products and won prizes at the county fair. Two students represented the chapter on May 2 when the Massachusetts Young Farmers Association was organized at M. A. C. The uncompleted parts of the program of work will be undertaken with the opening of the fall session of school.

An added activity in the program of work which illustrates an effort "to promote good will and teamwork" is the co-operation in the eradication of rats campaign. The students propose to assist the extension service in four ways: first, in disseminating information concerning the campaign; second, in mixing the poison bait; third, in distributing the bait; and fourth, in collecting data concerning the results.

Future Farmer Chapter of Essex County, Massachusetts, With Sales Booth at Topsfield Fair

Part-time Instruction Causes Alabama Boys to Re-enter Schools

(Continued from page 144)

year we set up part-time work as one of the major objectives in the Cherokee Vocational High School Community. I was very much pleased with the interest the boys took in securing members for last year's class and so well impressed with the results of the past class, that the same method will be used again this year. My opinion is that personal visits to the pupil's home and F. F. A. boys' assistance are the best ways to organize a class of part-time boys.

The school has co-operated with the vocational department at all times in assisting in various forms of instruction such as part-time classes in English, health, and mathematics. Most of the boys' time is used in the vocational building. One hour or more of the boys' time is taken in academic work such as fundamentals in English, mathematics, and health.

We have had unusual success with our part-time work. And have tried to let each boy's problems be the basis of his study. Work in the agricultural department consists of various jobs that confront the boy in his every-day life and the time he spends in the work shop is used in repairing farm machinery, sharpening plows, and other jobs of major importance that he will have to solve in the making of a crop.

Forty-one percent of the boys that have attended these classes were encouraged enough to re-enter school the following year and continue their high school course where it was left off at the time they quit school. On an average, one out of every 25 continued his school work until high school graduation.

Night School Musings

(Continued from page 139)

cause we are efficiently trained by the colleges, and because we are working under a plan which is well supervised, carefully safeguarded, and relatively free from politics.

We have made more progress with night schools because of this supervision. We should be thankful if our supervisors are over-enthusiastic rather than indifferent. Our directors and trainers are doing the best they can under the circumstances. The proportion of successful night schools is growing larger. They may never function in every community in every state, but we need to organize many more before we can reach the saturation point. When handled right, they are the best agency we have for developing and selling vocational agriculture among our school patrons. They are the most original piece of work we have ever done.

Let us plan not only an evening class, but an evening school program.

With evening school students I have discovered:

"Age is a quality of mind:
If you have left your dream behind,
If hope is cold,
If you no longer look ahead,
If your ambition fires are dead—
Then you are old.
But if from life you take the best,
And if in life you keep the jest,
If love you hold;
No matter how the years go by,
No matter how the birthdays fly,
You are not old."

—*Author Unknown.*

Utilizing Crop Projects for Teaching Storing and Marketing

(Continued from page 143)

October for $1.10 a bushel and that he would have needed at least $2.80 a bushel in February to break even. Some economics of marketing came thru that experience.

The student even questioned the final wisdom of using his limited capital that way, when he might have sold in October and re-invested in a production enterprise. The reason for inventories became apparent, and soundness of valuations verified. He satisfied himself, and the instructor, that the loss on storage was not due to an inflated production inventory and an inflated profit on production which would or might follow. Instead of blindly adopting that bromidic generalization that marketing is a weak spot in agriculture, he found some clues as to where and why.

Whether the student realized it or not, it provided him a clear-cut managerial experience requiring him to decide on one of several alternatives and to face the consequences.

For the instructor, the continuation project in marketing answered the question, "What became of the final inventory?" The project was a "natural setting" for experience with the otherwise abstract ideas of shrinkage, risks, storage costs, and correct inventory valuations. It did not afford experience in co-operative marketing techniques or organization, but it did give substance to some essential phases of that vague thing called marketing.

Soils—As It Is Taught At Beaver Dam High School

(Continued from page 137)

tion about each individual farm represented in the class. Each boy will then make a survey covering essentially: Acres and yields of crops, sales of livestock products,, care and amount of manure produced, kinds and amounts of feeds, fertilizers, and lime purchased. With this background, and with a knowledge of fertilizers gained in class, the boy is in a position to do some real "soil managing" based on facts and not on superstitions. As nearly as possible then each boy determines for his own farm how much fertilizing material he must purchase, how many acres of legumes he must raise, etc., to at least maintain, if not build up, the soil fertility on the home farm.

Changing Farm Practices Through Evening Courses

(Continued from page 140)

comparison. He has already decided that he will go into Leghorns rather than Rocks and has made arrangements to purchase next summer, 200 ten-weeks-old pullets from his younger brother now enrolled in the four-year agricultural course in the Lambertville High School. He plans to increase gradually his poultry flock to about 800 birds to supplement the income from his dairy which is the main enterprise on his farm. A further indication of this young man's attitude of mind is his attendance at the dairy short course last winter. It might show his determination to grow to mention that he has built a silo, has increased his original herd of 12 cows to 17, is now building an unusually fine stone milkhouse and has drawn up a set of plans, which we discussed at one of our meetings, for enlarging his barn to accommodate 25 milking cows.

While most of the accomplishments of these students have been directly connected with specific meetings, many of them have been the result of an indefinable something about the course which created in the student a desire to grow. It may be that small successes have sharpened their appetites for greater ones, but in any event machinery has been set in motion which will not be easy to stop. In each of the above cases, evening class work seems to have lighted a lamp which will keep on burning long after the kindling has gone out.

North Carolina F. F. A. Camp in Operation for Three Years

ROY H. THOMAS,
State Adviser

THREE successful years in the operation of a state camp for farm boys enrolled in the agriculture classes of the state has been of great social and recreational value to over 3,000 of North Carolina's farm youth. The camp, located at White Lake in Bladen County on one of the most beautiful inland bodies of water in the state, is the property of the North Carolina branch of Future Farmers of America and valued at $12,000. The camp proper, consisting of six student cottages, one large cottage for teacher's wives, a director's cottage, and a large central dining-room and recreational hall accommodates a maximum of 180 students and 30 teachers and guests.

New groups of boys, teachers, and their guests from six to eight schools arrive at the camp each Monday and leave on Saturday. The camp begins operation June 15 and closes the first of September.

Competitive tournaments under the supervision of an athletic director are conducted in baseball, basketball, horseshoe pitching, volley ball, swimming, and several other sports. The final weekly contests are closed on Friday with stunt night in the evening.

This is the "happy meeting ground" for vocational boys in North Carolina. They sing, play, swim, eat, and work with new acquaintances for a week. They leave with a fine spirit towards each other and with a new outlook on co-operative effort. Two dollars from each individual and the willingness to attend made the camp possible. The camp is theirs—a place to meet and play with distant friends, made possible only thru co-operation.

Manual Revised

THE F. F. A. Manual has been revised and is being printed again by the Farm Journal of Philadelphia. The revision includes the constitution changes made at the Third Annual Congress and additional helpful material which will be of assistance to all connected with the F. F. A. Orders can be filled for these Manuals at 15 cents each.